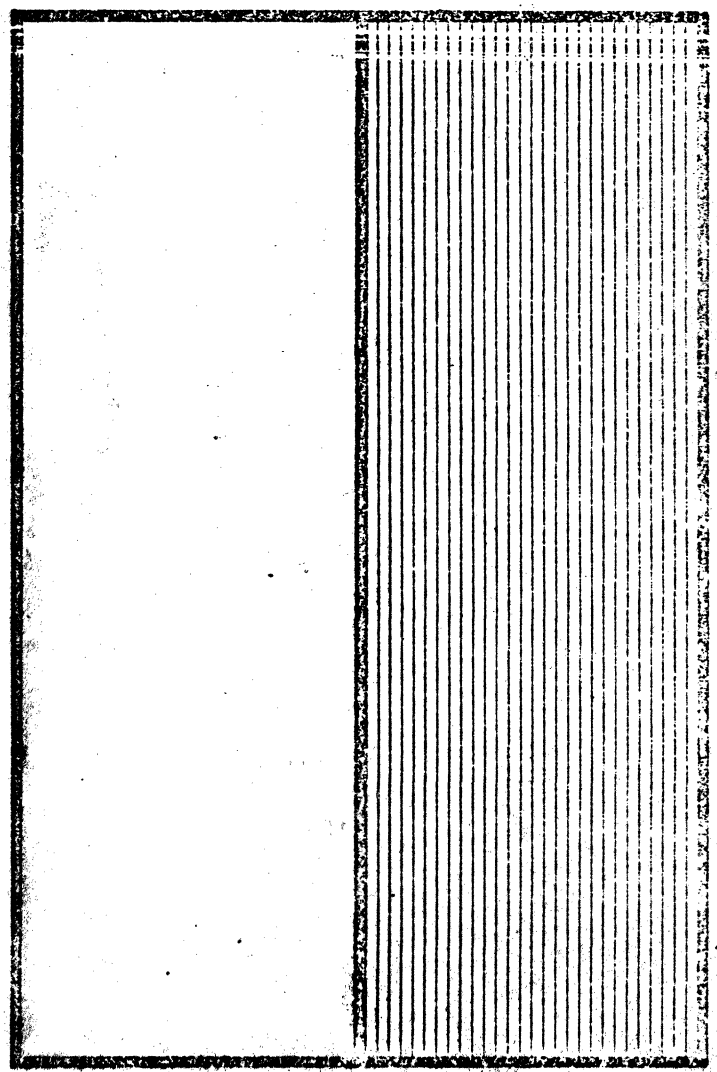
SPERRY RAND

UNIVAC 9400 SYSTEM

PROGRAM DESCRIPTION DRAWING



CUSTOMER ENGINEERING

4091695

SPERRY RAND UNIVAC

DRAWING NO. 4091695

REVISION A

CUSTOMER ENGINEERING
PRODUCT DIAGNOSTIC SOFTWARE

9400 5024/8414 FUNCTIONAL TEST - D4030
PROGRAM DESCRIPTION DRAWING

	SIGNATURE	TITLE	DATE
APPROVAL		Manager	
APPROVAL		Supervisor	
APPROVAL		Programmer	
APPROVAL		Programmer	

REVISION STATISTICS RECORD

DWG REV	MSTR REV	RELEASE DATE	DESIGNER NAME	EIR NUMBER	FCO NUMBER
A	M	11/1/72	PDS Phila., Pa.	C12606	

REVISION DESCRIPTION RECORD

REV	DESCRIPTION	UD #
A	Provide a cross reference between factory and Customer Engineering diagnostics. Provide the latest enhancements requested by Customer Engineering along with the latest factory testing techniques.	QQ3

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1. INTRODUCTION

1.1 Purpose. This document describes a 9400 Maintenance Test Program for the 5024/8414 Disc Subsystem.

1.2 Major Objectives. The objective of this program is to print the contents of any or all of the 4060 tracks of an 8414 Disc File. Test Organization and operator options are intended to satisfy the needs of Design, Quality Control and Field Engineering personnel in checkout, acceptance and maintenance activities.

1.3 Equipment Configurations. All equipment configurations must be connected to a Selector I-O channel of the 9400 processor. This test will operate the following equipment configuration:

--Disc File Control - Type 5024
--Disc Drive - Type 8414
--Disc Pack Assembly - Type F1214
--Drum Printer - Type 0768 -00 or 01

1.4 Associated Software. This program has DSKH included as an integral part of the program. This is the standard disc handler routine used by all Disc Maintenance test programs. It is the interface between the program and MCR, which performs program load, parameterization, execution, deletion, I-O handling, and message handling.

1.5 Reference Documents.

DRAWING	REVISION	DESCRIPTION
S70040	A	UNIVAC 9400 Processor, Type 3019-00 and -01.
--	-	UNIVAC 9400 Dual I-O Selector Channel, Type XXXX-00 and -01.
P10076	A	Disc File Control, Type 5024.
P21109	-	8414 Disc File.
4091622	-	Maintenance Control Routine.
4091623	-	Parameter and Message Routines.
3844459	-	5024/8414 Disc Program Handler.

2. FUNCTIONAL DESCRIPTION

2.1 General Organization. This program is designed to print any or all of the tracks of an 8414 Disc File.

2.2 Program Description

2.2.1 Test 1 (Disc to Printer)

Objective - This routine was not designed specifically as a test routine, but for the prupose of printing any or all of the 4060 tracks of an 8414 Disc File.

Method - The routine reads and prints Home Address, Record 0, and Count, Key and Data Records up to the maximum size record that can fit on a track. Home Address must be 5 bytes and the Count Area of each record including Record 0 must be 8 bytes. There are no restrictions on key and data record lengths.

3. OPERATING PROCEDURES

The Disc Handler Routine DSKII is used as a standard interface between the program and MCR. All operating procedures described in the DSKII documentation hold equally well for this program. See PDD 3844459.

3.1 Initialization. See DSKII documentation. The prog. is called by typing in the name D4030.

3.2 Test Program Parameters. See DSKII documentation.

3.3 Test Program Messages. The DSKII documentation describes all test entry and exit messages and a standard I-O message. Data errors are detected by the program, and all data error messages are contained in the program. Register 9 is used to jump to the various error routines, so its contents are printed with most error messages.

3.3.1 Test 1 -

--DAnn HA 00500001 MISSING
The Home Address Area for the cylinder and track specified is missing.

--DAnn HA 00500001 SHORT
The Home Address Area for the cylinder and track specified was not read in its entirety. The portion that was read will be printed.

--R0 MISSING
There is no Track Descriptor Record on the Track.

--INCORRECT LENGTH
Only part of a record (including Record 0) was read. The portion that was read will be printed.

--DA nn ERRONEOUSLY READ CYL XX HD XX INSTEAD OF CYL XX HD XX

The Home Address on the track does not match the cylinder and head no. of the Seek command.

The format of the printed data is as follows:

DA nn HA XXXXXXXX R0 C XXXXXXXXXXXXXXXX KD XXXXXXXXXXXXXXXX
R01 C XXXXXXXXXXXXXXXX KD XXXXXXXXXXXXXXXX

nn = device address

4. SUPPLEMENTARY DATA

4.1 Supplementary Software Information. Each test of the program is entered separately by DSKII and stands alone. It could be extracted from the rest of the program and either be eliminated or assembled by itself with DSKII.

4.2 Supplementary Hardware Information. See DSKII documentation.